Claims

- A composition comprising niobium oxide, zirconium oxide and yttrium oxide.
- 2. The composition according to claim 1 additionally comprising aluminum oxide.
- 3. The composition according to claim 1 comprising from 60 to 90 % by weight of niobium oxide (calculated in terms of Nb_2O_5) based on the total amount of the composition.
- 4. The composition according to claim 1 comprising from 5 to 20 % by weight of zirconium oxide (calculated in terms of ZrO_2) based on the total amount of the composition.
- 5. The composition according to claim 1 comprising from 5 to 35 % by weight of yttrium oxide (calculated in terms of Y_2O_3) based on the total amount of the composition.
- 6. The composition according to claim 1 comprising from 60 to 90% by weight of niobium oxide (calculated in terms of Nb_2O_5), from 5 to 20% by weight of zirconium oxide (calculated in terms of ZrO_2), and from 5 to 35% by weight of yttrium oxide (calculated in terms of Y_2O_3) based on the total amount of the composition.
- 7. The composition according to claim 6 additionally comprising aluminum oxide.
- 8. The composition according to claim 7, wherein the aluminum oxide content (calculated in terms of Al_2O_3) is from 0.3 to 7.5 % by weight of the total of niobium oxide, zirconium oxide and vttrium oxide.

- 9. A method for forming an antireflection film comprising sintering the composition of anyone of claims 1, 6 or 8, vaporizing the resulting oxide, and depositing the vapor on a substrate.
- 10. The method according to claim 9, wherein the substrate is a plastic substrate.
- 11. The method according to claim 10, wherein the plastic substrate has one or more coating layers.
- 12. The method according to claim 10, which is combined with an ion-assisted process.
- 13. An antireflection film comprising, in an alternating fashion, at least one layer of silicon dioxide and at least one layer obtainable according to the method of claim 9.
- 14. An antireflection film comprising, in an alternating fashion, at least one layer of silicon dioxide and at least one layer obtainable according to the method of claim 12.
- 15. An optical element comprising a hard coat layer on a plastic substrate and an antireflection film of claim 13.
- 16. An optical element comprising a hard coat layer on a plastic substrate and an antireflection film of claim 14.
- 17. An optical element according to claim 15 selected from a lens for spectacles, lens for a camera, windshield for an automobile, and an optical filter to be fitted to a display of a word processor.